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Letter to the editor

Conceptual interpretation of analysing and reporting of results on systematic review and meta-analysis of optimal extent of lateral neck dissection for well-differentiated thyroid carcinoma with metastatic lateral neck lymph nodes



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Dear editor

Won et al. have presented a study titled, “Optimal extent of lateral neck dissection for well-differentiated thyroid carcinoma with metastatic lateral neck lymph nodes: A systematic review and meta-analysis”, which has been published in the Oral Oncology journal [1]. We would like to commend the authors an excellent study that not only focuses on a clinically relevant topic, but also makes great strides by exploring both clinical outcomes of thyroid carcinoma patients, recurrence as well as survival. Such a thorough analysis makes this a valuable study for future research. Therefore, we would like to recommend a few valuable suggestions in the study that we hope be addressed; so that it may serve and enrich the quality of this paper further.

Conceptual interpretation of estimated effect size of pooled event rates

One of the issues is regarding the interpretation of the results of the meta-analysis. Although the meta-analysis itself is robust and well performed, the interpretation of the results, in which the authors describe the values derived from the pooled event rates, as results interpretation of distribution of metastatic lymph nodes and recurrence rate is incorrect. As the pooled event rates are simply an indication of the probability of overall event rate falling between the limits of the 95% confidence interval, it is imperative that the likelihood of uncertainty is reflected in the study. Therefore the absolute statement, “The distribution of metastatic lymph nodes was 13.7%”, could be changed to state, “The overall pooled values indicate that the (likelihood of) occurrence of metastatic lymph nodes is 13.7%”. Although the difference seems semantic in nature, it is important to understand that there is a marked difference between probabilities and absolutes [2].

Adherence to Pre-established systematic review and Meta-Analysis statements or guidelines

Furthermore, systematic reviews and meta-analyses could be ideal to adhere pre-established guidelines such as JBI, PRISMA or MOOSE, so that the study may be follow the same standards as other similar studies. This allows future studies to better utilise the data presented, as well as replicate the study. Therefore, we suggest that future studies by Won et al. may take this into consideration [3,4].

Any evidence of publication bias of the included studies

Additionally, we would also suggest that it is extremely important to assess the publication bias. Publication bias is a major factor that has received more importance in meta-analysis research and considered being more accurate approach than any other analysis. It can affect the integrity of any systematic review or meta-analysis study, and should be analysed for. Without assessing publication bias, it may be possible for the results to be misconstrued as negative results are generally not reported or missing studies [5,6].

We appreciate the opportunity to present our views on Won et al.’s paper, and hope that the suggestions will help future studies in this field.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication

Not applicable.

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Availability of data and materials

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Authors' contributions

RJ is primarily conceived of this critical review and led the development of the letter to the editor. Both RJ and CK wrote the first draft of the letter, and critically revised and edited successive drafts of the manuscript. RJ, and CK, read and approved the final version of the manuscript

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